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Paper No. 27

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Ex parte WOON-SEONG YEO

Appeal No. 2001-1887  
Application No. 09/055,240

HEARD: November 7, 2002

**MAILED**

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BOARD OF PATENT APPEALS  
AND INTERFERENCES**

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DOCKETING**

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Before BARRETT, RUGGIERO, and GROSS, Administrative Patent Judges.  
RUGGIERO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal from the final rejection of  
claims 33-44. Claims 5 and 6 stand allowed and claims 1-4 and 7-32  
have been canceled. An amendment filed October 31, 2000 after  
final rejection was denied entry by the Examiner.

The claimed invention relates to optical disks which are  
divided into zones with each zone including recording area blocks.  
A spare area block is included within each zone and used in the  
event a defect occurs in the recording area block. According to

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Appeal No. 2001-1887  
Application No. 09/055,240

Appellant (specification, pages 3 and 4), in contrast to the conventional arrangement in which the ratio of spare areas to recording areas remains constant across the zones of an optical disk, the present invention provides for varying the ratio of spare area to recording area. More particularly, the spare area to recording area ratio is increased at the inner and outer radial zones of the optical disk, where the frequency of defects increases due to thickness variations at these portions of the disk.

Claim 33 is illustrative of the invention and reads as follows:

33. An optical disk, comprising:

a series of several main areas and arranged to store digital data; and

a series of contiguous spare areas, each main area corresponding to a respective single one of the contiguous spare areas, a ratio between a size of each main area to a size of a corresponding contiguous spare area being varied.

The Examiner<sup>\*</sup> relies on the following prior art reference:<sup>1</sup>

Fukushima et al. (Fukushima)	5,111,444	May 05, 1992
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<sup>1</sup> In addition, the Examiner relies on Appellant's admitted prior art at pages 1-4 of the specification.

Appeal No. 2001-1887  
Application No. 09/055,240

Claims 33-44 stand finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Appellant's admitted prior art in view of Fukushima.

Rather than reiterate the arguments of Appellant and the Examiner, reference is made to the Brief (Paper No. 21) and Answer (Paper No. 22) for the respective details.

#### OPINION

We have carefully considered the subject matter on appeal, the rejection advanced by the Examiner, the arguments in support of the rejection and the evidence of obviousness relied upon by the Examiner as support for the rejection. We have, likewise, reviewed and taken into consideration, in reaching our decision, Appellant's arguments set forth in the Brief along with the Examiner's rationale in support of the rejection and arguments in rebuttal set forth in the Examiner's Answer.

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 33-44. Accordingly, we reverse.

Appeal No. 2001-1887  
Application No. 09/055,240

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the Examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

With respect to independent claims 33 and 39, the Examiner, as the basis for the obviousness rejection, proposes to modify the optical disk disclosure of the admitted prior art and Fukushima. In the Examiner's analysis (Answer, pages 3 and 4), both the admitted prior art and Fukushima disclose an optical disk divided into concentric zones, with the zones including a main recording area and a spare area. The Examiner further observes that, although the applied prior art suggests that the size of the spare area is varied in a radial direction of the disk, this variation maintains a constant ratio between the main recording areas and spare areas in contrast to the claimed invention in which the ratio of recording area to spare area is varied in a radial direction across the disk. Despite the admitted lack of disclosure of such a feature in the admitted prior art and Fukushima, the Examiner nevertheless suggests (id., at 4) the obviousness to the skilled artisan of modifying the applied prior art to arrive at the claimed variable ratio of main recording area to spare area as a matter of obvious design choice.

After reviewing the disclosure of the admitted prior art and Fukushima, in light of the arguments of record, we are in general agreement with Appellant's position as stated in the Brief. In our view, the Examiner's reliance on design considerations as a basis

Appeal No. 2001-1887  
Application No. 09/055,240

for the proposed modification of the admitted prior art and Fukushima is not well founded. Appellant's disclosed intended function of providing more spare recording areas in portions of an optical disk, such as the innermost and outermost radial regions, where defects are likely to occur can only be achieved through the particular variable ratio spare area allocation feature set forth in independent claims 33 and 39.

We find that the Examiner's assertion that the specific claimed variation of the ratio of the size of a spare area to the size of a main recording area in an optical disk having a series of divided zones would be a matter of design choice is totally devoid of any support on the record. The Examiner must not only make requisite findings, based on the evidence of record, but must also explain the reasoning by which the findings are deemed to support the conclusion of obviousness. See In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433-34 (Fed. Cir. 2002). In our view, while the applied prior art references suggest the variation of spare area to recording area at a constant rate across a zoned disk, any direction to the skilled artisan to arrive at Appellant's specific claimed variable ratio feature could not come from any prior art teaching but, rather, only from Appellant's own disclosure.

Appeal No. 2001-1887  
Application No. 09/055,240

Since all of the claim limitations are not taught or suggested by the applied prior art, it is our opinion that the Examiner has not established a prima facie case of obviousness with respect to appealed independent claims 33 and 39.

Accordingly, the Examiner's 35 U.S.C. § 103(a) rejection of independent claims 33 and 39, as well as claims 34-38 and 40-44 dependent thereon, is not sustained. Therefore, the decision of the Examiner rejecting claims 33-44 is reversed.

REVERSED

Lee E. Barrett  
LEE E. BARRETT

LEE E. BARRETT  
Administrative Patent Judge

JOSEPH F. BUGGIE

JOSEPH F. RUGGIERO  
Administrative Patent Judge

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ANITA PELLMAN GROSS  
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Appeal No. 2001-1887  
Application No. 09/055,240

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